# UNITED STATES PATENT AND TRADEMARK OFFICE

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| 10/036,182 | 12/28/2001 | Mika H. Laaksonen | 061602-5375 | 4864 |

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| EXAMINER |
|---|
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| | Application No. | Applicant(s) |
|---|---|---|
| **Office Action Summary** | 10/036,182 | LAAKSONEN, MIKA H. |
| | **Examiner** | **Art Unit** | |
| | HEATHER R. JONES | 2621 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on <u>11 September 2008</u>.

2a)☒ This action is **FINAL**.          2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) <u>1-6 and 8-31</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-6 and 8-31</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>28 December 2001</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some *  c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

## DETAILED ACTION

### *Response to Arguments*

1.      Applicant's arguments filed September 11, 2008 have been fully considered but

they are not persuasive.

        The Applicant argues that Takemura fails to teach at least the use and/or

storage of most recent information indicative of adjustments/modifications made

to an image or audio representation.  The Examiner respectfully disagrees.

Takemura discloses in col. 8, lines 30-46 that image data obtained by the image

taking means is displayed as a visible image on a monitor to allow the

photographer to input various setting values in order to process the image data

according to new settings and once the photographer is content with the new

image those new settings are attached to the original image so that when the

image is reproduced the original image will be processed with those new settings

in order to produce the image the photographer desired.  These new settings are

the most recent changes made to the image and store with the image data.

Therefore, Takemura meets the claimed limitation and the rejection is

maintained.

2.      In response to applicant's arguments against the references individually, one

cannot show nonobviousness by attacking references individually where the rejections

are based on combinations of references.  See *In re Keller*, 642 F.2d 413, 208

USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir.

1986).  The Sato reference was only cited to disclose that the image data can be stored

in a JPEG/lossy format and the whole teaching of Sato was not needed in this rejection

because the other limitations of the claim were met by the Takemura reference.

Therefore, the rejection is maintained.

### *Claim Rejections - 35 USC § 103*

3.      The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.      Claims 1-6 and 8-31 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Takemura (U.S. Patent 6,657,658) in view of Sato (U.S. 6,650,365).

Regarding claim **1**, Takemura discloses a data unit for storage of image or

audio data so that an image or an audio representation can be presented based

on the image or audio data, the data unit comprising the image or audio and

most recent information regarding adjustments that have been made to the

image or audio representation after the image or audio data was input in the data

unit, wherein the image or audio representation is stored on the data unit without

reflecting the adjustments that have been made thereto (Fig. 6; col. 8, lines 22-56

– the image data and the finishing information are stored separately and the

image data is the original image data as can be seen from Fig. 6).  However,

Takemura fails to disclose that the image data is stored in a lossy format.

Referring to the Sato reference, Sato discloses in Fig. 2 an example of the allocation of data areas of an image file formed in the memory card. Furthermore, Sato discloses that the image is compressed according to the JPEG algorithm (col. 3, lines 24-29). It is well known in the art that it is a component of JPEG that the data is stored in a lossy format.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have stored the image as in a lossy format as disclosed by Sato in the device disclosed by Takemura in order to take advantage of the lossy compression algorithms which takes the limitations of the human eye into account and discards information that cannot be seen, which allows the image to be further compressed and reduces the file size.

Regarding claim **2**, Takemura in view of Sato discloses all the limitations as previously discussed with respect to claim 1 as well as disclosing that the data unit comprises at least two fields such that the information is stored in a field that is separate from a field in which the data is stored (Takemura: col. 8, lines 47-56).

Regarding claim **3**, Takemura in view of Sato discloses all the limitations as previously discussed with respect to claims 1 and 2 as well as disclosing the separate field comprises a comment field (Takemura: col. 8, lines 47-56 - the comment field would be the finishing information).

Regarding claim **4**, Takemura in view of Sato discloses all the limitations as previously discussed with respect to claim 1 including that the data unit being

adapted to provide information regarding changes that are to be made to the

image or the audio presentation before representation thereof (Takemura: col. 8,

line 57 - col. 9, line 21 - as can be seen from Fig. 6 that before the final image is

printed it undergoes image processing).

Regarding claim **5**, Takemura in view of Sato discloses all the limitations

as previously discussed with respect to claim 1 including that the data unit

comprises compressed image or audio data (Takemura: col. 8, lines 22-56).

Regarding claim **6**, Takemura in view of Sato discloses all the limitations

as previously discussed with respect to claim 1, as well as disclosing that the

data unit comprises an image data field (Takemura: col. 8, lines 47-56).

Regarding claim **8**, Takemura in view of Sato discloses all the limitations

as previously discussed with respect to claim 1, including that the image data

field comprises a JPEG file or similar (Sato: col. 3, lines 24-29).

Regarding claim **9**, Takemura in view of Sato discloses all the limitations

as previously discussed with respect to claims 1 and 6 as well disclosing a data

unit wherein the adjustments relate to one or more of the following adjustments:

brightness of the image; contrast of the image; white balance of the image;

gamma correction of the image; boundaries of the image; sharpening of the

image; or quality of the image (Takemura: col. 8, lines 10-22).

Regarding claim **10**, Takemura discloses a device, comprising: a storage

for storing image data associated with an image, along with most recent

information regarding adjustments made to the image data after the data was

stored into the storage, wherein the image data is stored without reflecting the

adjustments that have been made thereto; and a processor (33) for processing

the image data based at least in part on the information, the information being

indicative of changes to be made to the image data before the image is displayed

on a display (45) (Figs. 6 and 8; col.10, lines 20-36). However, Takemura fails to

disclose that the image data is stored in a lossy format.

Referring to the Sato reference, Sato discloses in Fig. 2 an example of the

allocation of data areas of an image file formed in the memory card.

Furthermore, Sato discloses that the image is compressed according to the

JPEG algorithm (col. 3, lines 24-29). It is well known in the art that it is a

component of JPEG that the data is stored in a lossy format.

Therefore, it would have been obvious to one of ordinary skill in the art at

the time the invention was made to have stored the image as in a lossy format as

disclosed by Sato in the device disclosed by Takemura in order to take

advantage of the lossy compression algorithms which takes the limitations of the

human eye into account and discards information that cannot be seen, which

allows the image to be further compressed and reduces the file size.

Regarding claim **11**, Takemura in view of Sato discloses all the limitations

as previously discussed with respect to claim 10 as well as disclosing a device

wherein the processor (33) is adapted to change at least one of the following

features of the image based at least in part on the information: brightness of the

image; contrast of the image; white balance of the image; gamma correction of

the image; boundaries of the image; sharpening of the image; or quality of the image (Takemura: col. 8, lines 10-22; col. 10, lines 20-36).

Regarding claim **12**, Takemura in view of Sato discloses all the limitations as previously discussed with respect to claim 10 including that the changes in the image to be displayed do not affect the image data stored in the storage (Takemura: col. 8, lines 30-46).

Regarding claim **13**, Takemura in view of Sato discloses all the limitations as previously discussed with respect to claim 10 as well as the processor (33) is adapted to modify the image based at least in part on information included in a comment field of the storage (Takemura: col. 8, lines 30-46).

Regarding claim **14**, Takemura in view of Sato discloses all the limitations as previously discussed with respect to claim 10 including a device wherein the processor (33) is adapted to change the information indicative of the changes in the image (Takemura: col. 12, lines 36-41).

Regarding claim **15**, Takemura in view of Sato discloses all the limitations as previously discussed with respect to claim 10 as well as disclosing that the device comprises a portable device (Takemura: the digital camera in Fig 6 is portable).

Regarding claim **16**, Takemura in view of Sato discloses all the limitations as previously discussed with respect to claim 10 including that the device comprises a mobile station (Takemura: the digital camera in Fig. 6 is mobile).

Regarding claim **17**, Takemura in view of Sato discloses all the limitations as previously discussed with respect to claim 10 including that the device comprising a digital camera (Takemura: Fig. 6).

Regarding claim **18**, Takemura discloses a method of displaying an image, comprising: storing image data associated with the image in a data storage; storing, in the data storage, most recent information indicative of modifications made to the image after storing of the image data so that the information can be fetched when the image is to be displayed by a display device, wherein the modifications are not reflected in the image data stored in the data storage; and modifying the image based on the information; and displaying the modified version of the image (Fig. 6; col. 8, lines 22-56 – the image data and the finishing information are stored separately and the image data is the original image data as can be seen from Fig. 6). However, Takemura fails to disclose that the image data is stored in a lossy format.

Referring to the Sato reference, Sato discloses in Fig. 2 an example of the allocation of data areas of an image file formed in the memory card. Furthermore, Sato discloses that the image is compressed according to the JPEG algorithm (col. 3, lines 24-29). It is well known in the art that it is a component of JPEG that the data is stored in a lossy format.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have stored the image as in a lossy format as disclosed by Sato in the device disclosed by Takemura in order to take

advantage of the lossy compression algorithms which takes the limitations of the

human eye into account and discards information that cannot be seen, which

allows the image to be further compressed and reduces the file size.

Regarding claim **19**, Takemura in view of Sato discloses all the limitations

as previously discussed with respect to claim 18 a method wherein the image

data is stored in a compressed form an image data field of an image data storage

unit and the information indicative of modifications is stored in another field of the

image data storage unit (Takemura: col. 8, lines 47-56).

Regarding claim **20**, Takemura in view of Sato discloses all the limitations

as previously discussed with respect to claims 18 and 19 including that the other

field comprises a comment field (Takemura: col. 8, lines 47-56 - the comment

field would be the finishing information).

Regarding claim **21**, Takemura in view of Sato discloses all the limitations

as previously discussed with respect to claim 19, including that the image data is

stored in a lossy format (Sato: col. 3, lines 24-29).

Regarding claim **22**, Takemura in view of Sato discloses all the limitations

as previously discussed with respect to claim 18 as well as disclosing a method

wherein the modification comprises modification of at least one of the following

features of the image: brightness of the image; contrast of the image; white

balance of the image; gamma correction of the image; boundaries of the image;

sharpening of the image; or quality of the image (Takemura: col. 8, lines 10-22;

col. 10, lines 20-36).

Regarding claim **23**, Takemura in view of Sato discloses all the limitations as previously discussed with respect to claim 18 as well as disclosing a method wherein the most recent information indicative of the modifications of the image is stored while the image data remains substantially unchanged after the image has been modified (Takemura: col. 8, lines 30-46).

Regarding claim **24**, Takemura in view of Sato discloses all the limitations as previously discussed with respect to claim 18, but fails to disclose a method comprising the steps of: dividing the image area into a plurality of image blocks before the step of storing the image data; compressing the image data in each of the image blocks separately; storing the compressed image blocks in the data storage means; selecting at least one of the image data blocks to be fetched from the data storage means based on the information indicative of modifications; fetching the selected at least one image data block from the data storage means; decompressing the at least one fetched image data block; and displaying the content of the decompressed at least one image data block. Official Notice is taken to store image data using JPEG compression and the process described above is part of JPEG compression. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have stored the image using JPEG compression because JPEG provides low complexity and utilizes memory efficiently.

Regarding claim **25**, Takemura in view of Sato discloses all the limitations as previously discussed with respect to claim 18, but fails to disclose a method

wherein the selection of the image data blocks is accomplished to adjust the size

of the image area to be displayed. Official Notice is taken that cropping may be

used to alter an image and that it is a well-known technique. Furthermore,

Takemura allows the user to select either portrait or landscape as finishing

information which require cropping the image. Therefore, it would have been

obvious to one of ordinary skill in the art at the time the invention was made to

alter the size of the image to be displayed by using a cropping technique and

saving this parameter in the comment field in order to display only a portion of

the image to further enhance the details in that region of the original image. By

saving a cropping parameter the original image would still be saved as well in

order to allow the user to restore the image to its original shape at any point in

time.

Regarding claim **26**, Takemura in view of Sato discloses all the limitations

as previously discussed with respect to claim 18 as well as disclosing a method

wherein the image is one of a plurality of images that are displayed in succession

(Takemura: it is inherent that the image is one of a plurality of images to be

displayed when more than one image has been taken because the user may

scroll through the saved images).

Regarding claim **27**, Takemura in view of Sato discloses all the limitations

as previously discussed with respect to claims 18 and 26 including that each

image of the plurality of images is provided with information indicative of

modifications made to the image (Takemura: as be seen from Fig. 6 each image

has a comment field attached to the image field).

Regarding claim **28**, Takemura in view of Sato discloses all the limitations

as previously discussed with respect to claims 18 and 26 as well as disclosing a

method wherein at least one image of the plurality of images is provided with

information indicative of modifications made to the image, and wherein at least

one other image of the plurality of images is modified based on the information

(Takemura: it is inherent that at least one other image of a plurality of images is

modified based on the information from another image; when a user finds the

correct parameters to enhance an image for a particular venue then all the

images taken at that venue would be taken using the same parameters).

Regarding claim **29**, Takemura in view of Sato discloses all the limitations

as previously discussed with respect to claim 18 including that the image is

displayed on a screen (LCD) of a portable display device (digital camera)

(Takemura: Fig. 6 – the image is displayed on the camera to make the original

adjustments).

Regarding claim **30**, Takemura in view of Sato discloses all the limitations

as previously discussed with respect to claim 18 including that the image data is

transmitted to the display device over a wireless interface (Takemura: col. 8,

lines 57-67).

Regarding claim **31**, Takemura discloses a data unit for storage of image

or audio data associated with an image or audio representation, comprising the

image or audio data and most recent information regarding adjustments to the

image or audio representation, wherein the image or audio representation is

stored on the data unit without reflecting the adjustment to be made thereto (Fig.

6; col. 8, lines 22-56 – the image data and the finishing information are stored

separately and the image data is the original image data as can be seen from

Fig. 6). However, Takemura fails to disclose that the image data is stored in a

lossy format.

Referring to the Sato reference, Sato discloses in Fig. 2 an example of the

allocation of data areas of an image file formed in the memory card.

Furthermore, Sato discloses that the image is compressed according to the

JPEG algorithm (col. 3, lines 24-29). It is well known in the art that it is a

component of JPEG that the data is stored in a lossy format.

Therefore, it would have been obvious to one of ordinary skill in the art at

the time the invention was made to have stored the image as in a lossy format as

disclosed by Sato in the device disclosed by Takemura in order to take

advantage of the lossy compression algorithms which takes the limitations of the

human eye into account and discards information that cannot be seen, which

allows the image to be further compressed and reduces the file size.

## *Conclusion*

5.      **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action.  In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action.  In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the

examiner should be directed to HEATHER R. JONES whose telephone number is

(571)272-7368.  The examiner can normally be reached on Mon. - Thurs.: 7:00 am -

4:30 pm, and every other Fri.: 7:00 am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Thai Tran can be reached on 571-272-7382.  The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system.  Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

<div style="margin-left: 50%;">

Heather R Jones
Examiner
Art Unit 2621
</div>

HRJ
December 18, 2008


/Thai Tran/
Supervisory Patent Examiner, Art Unit 2621